

WHAT IS CLAIMED IS:

Sub A1

1. An isocyanate-reactive component useful for the production of a rigid closed cell polyurethane foam by a RIM process comprising:
 - a) from 0.5 to 30% by weight, based on total weight of isocyanate-reactive component, of a bio-based polyol,
 - b) from 5 to 80% by weight, based on total weight of isocyanate-reactive component, of an isocyanate-reactive material having a functionality of at least 1 and a number average molecular weight of from 400 to 10,000,
 - c) a chain extender or a crosslinking agent,
 - d) a blowing agent, and
 - e) a catalyst.
2. The isocyanate-reactive component of Claim 1 in which up to 25% by weight of the total isocyanate reactive-component is the bio-based polyol.
3. The isocyanate-reactive component of Claim 1 in which up to 20% by weight of the total isocyanate-reactive component is the bio-based polyol.
4. The isocyanate-reactive component of Claim 1 in which at least 0.5% by weight of the total isocyanate-reactive component is the bio-based polyol.
5. The isocyanate-reactive component of Claim 1 in which at least 5% by weight of the total isocyanate-reactive component is the bio-based polyol.
6. The isocyanate-reactive component of Claim 1 in which the bio-based polyol is a blown soybean oil.
7. An isocyanate-reactive component useful for the production of a rigid closed cell polyurethane foam by a RIM process comprising:
 - a) at least 10% by weight, based on total weight of isocyanate reactive component, of a soybean oil based polyol,
 - b) from 5 to 80% by weight, based on total weight of isocyanate-reactive component of a polyether polyol having

a functionality of from 2 to 8 and a number average molecular weight of from 400 to 10,000,

5 c) from 1 to 75% by weight, based on total weight of isocyanate-reactive component of a chain extender,

5 d) water, and

5 e) a catalyst.

8. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising

10 a) intimately mixing the isocyanate-reactive component of Claim 1 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and

10 b) introducing the mixture from a) into a mold.

9. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

15 a) intimately mixing the isocyanate-reactive component of Claim 2 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and

15 b) introducing the mixture from a) into a mold.

10. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising

20 a) intimately mixing the isocyanate-reactive component of Claim 3 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and

20 b) introducing the mixture from a) into a mold.

11. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

25 a) intimately mixing the isocyanate-reactive component of Claim 6 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and

30 b) introducing the mixture from a) into a mold.

12. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

5 a) intimately mixing the isocyanate-reactive component of
Claim 7 with an organic polyisocyanate in an amount such
that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
b) introducing the mixture from a) into a mold.

13. A rigid, closed-cell polyurethane foam produced by the
process of Claim 8.

14. A rigid, closed-cell polyurethane foam produced by the
process of Claim 9.

15. A rigid, closed-cell polyurethane foam produced by the
process of Claim 10.

16. A rigid, closed-cell polyurethane foam produced by the
process of Claim 11.

17. A rigid, closed-cell polyurethane foam produced by the
process of Claim 12.